

## EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	17913	(o\$1ring gasket seal\$3).clm. and (center central middle).clm. and (ball spher\$4 round glob\$4 circular).clm.	US-PGPUB; USPAT	OR	ON	2006/11/20 15:09
L2	10717	(o\$1ring gasket seal\$3).clm. and (center central middle).clm. and (ball spher\$4 round glob\$4 circular).clm. and (connect\$4).clm.	US-PGPUB; USPAT	OR	ON	2006/11/20 15:10
L3	543	(o\$1ring gasket seal\$3).clm. with (center central middle).clm. with (ball spher\$4 round glob\$4 circular).clm. with (connect\$4).clm.	US-PGPUB; USPAT	OR	ON	2006/11/20 15:10
L4	5	(o\$1ring gasket seal\$3).clm. with (center central middle).clm. with (ball spher\$4 round glob\$4 circular).clm. with (connect\$4).clm. with (substrate wafer workpiece semiconductor).clm. with (hold\$3 support\$3).clm.	US-PGPUB; USPAT	OR	ON	2006/11/20 15:12
L5	10	tzeng-huan-liang.in. hsieh-jeng-horng.in. chang-jung-hsiang.in.	US-PGPUB; USPAT	OR	ON	2006/11/20 15:12
L6	7	((o\$1ring gasket seal\$3).clm. with (center central middle).clm. with (ball spher\$4 round glob\$4 circular).clm. with (connect\$4).clm.) and ((substrate wafer workpiece semiconductor).clm. with (hold\$3 support\$3).clm.))	US-PGPUB; USPAT	OR	ON	2006/11/20 15:14
L7	7	((o\$1ring gasket seal\$3).clm. with (center central\$4 middle).clm. with (ball spher\$4 round glob\$4 circular).clm. with (connect\$4).clm.) and ((substrate wafer workpiece semiconductor).clm. with (hold\$3 support\$3).clm.))	US-PGPUB; USPAT	OR	ON	2006/11/20 15:41
L8	185	118/503.ccls. and (o\$1ring gasket seal\$3)	US-PGPUB; USPAT	OR	ON	2006/11/20 15:41
L9	54	118/503.ccls. and (o\$1ring gasket seal\$3) same ((support\$3 hold\$3) with (wafer semiconductor workpiece substrate))	US-PGPUB; USPAT	OR	ON	2006/11/20 15:42
S7	3	("6214119") or ("4923584") or ("5522975").PN.	US-PGPUB; USPAT	OR	OFF	2006/04/13 12:14
S8	441	(o\$1ring) with (support\$3 hold\$3) with (wafer substrate semiconductor workpiece)	US-PGPUB; USPAT	OR	ON	2006/04/12 21:36
S9	1	(o\$1ring) with (support\$3 hold\$3) with (wafer substrate semiconductor workpiece) with (spher\$4)	US-PGPUB; USPAT	OR	ON	2006/04/13 12:14
S10	0	("2005/0155709").URPN.	USPAT	OR	ON	2006/04/12 21:02
S11	2	(o\$1ring) with (support\$3 hold\$3) with (wafer substrate semiconductor workpiece) with ball	US-PGPUB; USPAT	OR	ON	2006/04/12 21:04
S12	40	(o\$1ring) with (support\$3 hold\$3) with (wafer substrate semiconductor workpiece) with (connect\$4)	US-PGPUB; USPAT	OR	ON	2006/04/12 21:16
S13	277	(o\$1ring).ti.	US-PGPUB; USPAT	OR	ON	2006/04/12 21:25
S14	1045	277/910.ccls.	US-PGPUB; USPAT	OR	ON	2006/04/12 21:25
S15	3	277/910.ccls. and (ball spher\$4).ti.	US-PGPUB; USPAT	OR	ON	2006/04/13 16:08
S16	103	277/910.ccls. and (ball spher\$4)	US-PGPUB; USPAT	OR	ON	2006/04/13 16:09
S17	38	277/910.ccls. and ((ball spher\$4) with (o\$1ring seal\$3))	US-PGPUB; USPAT	OR	ON	2006/04/12 21:26
S18	0	277/543.ccls. and (ball spher\$4).ti.	US-PGPUB; USPAT	OR	ON	2006/04/12 21:28
S19	248	277/543.ccls.	US-PGPUB; USPAT	OR	ON	2006/04/12 21:28
S20	360	(o\$1ring) with (support\$3 hold\$3) with (spher\$6 ball)	US-PGPUB; USPAT	OR	ON	2006/04/12 21:37

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S21	4	S20 and (118/715-733.ccls. 156/345\$.ccls.)	US-PGPUB; USPAT	OR	ON	2006/04/12 21:36
S22	81	(o\$1ring) with (support\$3 hold\$3) with (spher\$6 ball)	EPO; JPO; DERWENT	OR	ON	2006/04/12 21:38
S23	3	S22 and (wafer workpiece semiconductor substrate)	EPO; JPO; DERWENT	OR	ON	2006/04/12 21:38
S24	9	(o\$1ring) with (support\$3 hold\$3) with (spher\$6 ball) with (central\$4 center\$4 middle)	EPO; JPO; DERWENT	OR	ON	2006/04/12 21:39
S25	34	(o\$1ring) same (support\$3 hold\$3) same (wafer substrate semiconductor workpiece) same (spher\$6 ball)	US-PGPUB; USPAT	OR	ON	2006/04/13 12:16
S26	3	(o\$1ring) same (support\$3 hold\$3) same (wafer substrate semiconductor workpiece) same (spher\$6 ball)	EPO; JPO; DERWENT	OR	ON	2006/04/13 12:15
S27	1795	((156/345.51) or (118/728)).CCLS.	US-PGPUB; USPAT	OR	OFF	2006/04/13 18:16
S28	2375	((156/345.51) or (118/728) or (118/729)).CCLS.	US-PGPUB; USPAT	OR	OFF	2006/04/13 14:34
S29	330	S28 and o\$1ring	US-PGPUB; USPAT	OR	ON	2006/04/13 17:49
S30	68	S28 and (o\$1ring with support\$4)	US-PGPUB; USPAT	OR	ON	2006/04/13 14:52
S31	28	S28 and (o\$1ring with support\$4 with (wafer substrate semiconductor workpiece))	US-PGPUB; USPAT	OR	ON	2006/04/13 15:46
S32	28	(156/345\$.ccls. 118/715/733.ccls.) and (o\$1ring with support\$4 with (wafer substrate semiconductor workpiece))	US-PGPUB; USPAT	OR	ON	2006/04/13 14:53
S33	55	(156/345\$.ccls. 118/715-733.ccls.) and (o\$1ring with support\$4 with (wafer substrate semiconductor workpiece))	US-PGPUB; USPAT	OR	ON	2006/04/13 14:53
S34	6	118/500.ccls. and (o\$1ring with support\$4 with (wafer substrate semiconductor workpiece))	US-PGPUB; USPAT	OR	ON	2006/04/13 15:47
S35	0	118/500.ccls. and (o\$1ring with support\$4 with (radial\$4))	US-PGPUB; USPAT	OR	ON	2006/04/13 15:47
S36	4	(o\$1ring with support\$4 with (radial\$4) with (wafer substrate semiconductor workpiece))	US-PGPUB; USPAT	OR	ON	2006/04/13 15:49
S37	6391	(o\$1ring with (radial\$4))	US-PGPUB; USPAT	OR	ON	2006/04/13 15:52
S38	66	(o\$1ring with (strut))	US-PGPUB; USPAT	OR	ON	2006/04/13 15:49
S39	124	(o\$1ring with (radial\$4) with (ball spher\$7))	US-PGPUB; USPAT	OR	ON	2006/04/13 15:57
S40	14	(o\$1ring with (radial\$4) with (ball spher\$7))	EPO; JPO; DERWENT	OR	ON	2006/04/13 15:53
S42	104	277/910.ccls. and (ball spher\$7)	US-PGPUB; USPAT	OR	ON	2006/04/13 16:27
S43	442	277/910.ccls. and (radial\$4 diamet\$6)	US-PGPUB; USPAT	OR	ON	2006/04/13 16:27
S44	443	277/910.ccls. and (radial\$4 diamet\$7)	US-PGPUB; USPAT	OR	ON	2006/04/13 16:27
S45	287	277/910.ccls. and ((radial\$4 diamet\$7) with (across extend\$4 connect\$4))	US-PGPUB; USPAT	OR	ON	2006/04/13 16:29
S46	185390	((radial\$4 diamet\$7) with (across extend\$4 connect\$4))	EPO; JPO; DERWENT	OR	ON	2006/04/13 16:28
S47	978	o\$1ring and ((radial\$4 diamet\$7) with (across extend\$4 connect\$4))	EPO; JPO; DERWENT	OR	ON	2006/04/13 16:28
S48	3	("4811703").URPN.	USPAT	OR	ON	2006/04/13 16:56
S49	289	o\$1ring same "connecting portion"	USPAT	OR	ON	2006/04/13 16:57

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S50	17	o\$1ring same "connecting portion"	EPO; JPO; DERWENT	OR	ON	2006/04/13 16:57
S51	7	o\$1ring with "connecting portion"	EPO; JPO; DERWENT	OR	ON	2006/04/13 16:57
S52	207	o\$1ring with "connecting portion"	US-PGPUB; USPAT	OR	ON	2006/04/13 16:58
S53	106733	o\$1ring with "connecting portion" with (diameter\$7 radial\$7)	US-PGPUB; USPAT	OR	ON	2006/04/13 16:58
S54	22	o\$1ring with "connecting portion" with (diameter\$7 radial\$7)	US-PGPUB; USPAT	OR	ON	2006/04/13 17:05
S55	278	o\$1ring.ti.	US-PGPUB; USPAT	OR	ON	2006/04/13 17:12
S56	178	(277/640).CCLS.	US-PGPUB; USPAT	OR	OFF	2006/04/13 17:23
S57	680	(277/637).CCLS.	US-PGPUB; USPAT	OR	OFF	2006/04/13 17:23
S58	0	("32and(ball spher\$7)").PN.	US-PGPUB; USPAT	OR	OFF	2006/04/13 17:23
S59	70	S57 and (ball spher\$7)	US-PGPUB; USPAT	OR	ON	2006/04/13 17:28
S60	596	S57 not (S56 S59)	US-PGPUB; USPAT	OR	ON	2006/04/13 17:36
S61	23	(paddle robot arm hand) with (transfer\$4 transport\$4) with (wafer substrate semiconductor workpiece) with o\$1ring	US-PGPUB; USPAT	OR	ON	2006/04/13 17:41
S62	28	(paddle robot arm hand transfer\$4 transport\$4) with (wafer substrate semiconductor workpiece) with o\$1ring	EPO; JPO; DERWENT	OR	ON	2006/04/13 17:46
S63	0	tzeng-huan-liang.in. hsieh-jeng-horng.in. chang-jung-hsiang.in.	EPO; JPO; DERWENT	OR	ON	2006/04/13 17:47
S64	10	tzeng-huan-liang.in. hsieh-jeng-horng.in. chang-jung-hsiang.in.	US-PGPUB; USPAT	OR	ON	2006/11/20 15:11
S65	9	("4213698"   "4473455"   "4646418"   "4846452"   "5033538"   "5180000"   "5324012"   "5330607"   "5376180").PN.	US-PGPUB; USPAT; USOCR	OR	ON	2006/04/13 17:48
S66	32	S28 and ((center\$3 central\$3 middle) with (ball spher\$7))	US-PGPUB; USPAT	OR	ON	2006/04/13 17:49
S67	4	("5671910"   "5863338"   "5899445"   "5937993").PN.	US-PGPUB; USPAT; USOCR	OR	ON	2006/04/13 18:01
S68	80	o\$1ring with (strut)	US-PGPUB; USPAT; USOCR	OR	ON	2006/04/13 18:01
S69	273	(o\$1ring gasket) with (strut)	US-PGPUB; USPAT; USOCR	OR	ON	2006/04/13 18:03
S70	453275	156/345.31.ccls. "156"	US-PGPUB; USPAT	OR	ON	2006/04/13 18:16
S71	1171	((156/345.31) or (156/345.32) or (118/718)).CCLS.	US-PGPUB; USPAT	OR	OFF	2006/04/13 18:17
S72	3	S71 and "0"\$1ring	US-PGPUB; USPAT	OR	ON	2006/04/13 18:17
S73	115	S71 and o\$1ring	US-PGPUB; USPAT	OR	ON	2006/04/13 18:17
S74	2577	o\$1ring with (ball spher\$4)	US-PGPUB; USPAT	OR	ON	2006/04/17 17:12
S75	3865	(o\$1ring gasket) with (ball spher\$4)	US-PGPUB; USPAT	OR	ON	2006/04/17 17:12

## EAST Search History

S76	1	S75 and 414/935-941.ccls.	US-PGPUB; USPAT	OR	ON	2006/04/17 17:13
S77	23	S75 and "414"/\$.ccls.	US-PGPUB; USPAT	OR	ON	2006/04/17 17:14
S78	1050	277/910.ccls.	US-PGPUB; USPAT	OR	ON	2006/11/16 13:05
S79	3122	((277/910) or (277/644) or (277/626) or (277/637)).CCLS.	US-PGPUB; USPAT	OR	OFF	2006/11/16 14:05
S80	17	("3052478"   "3214182"   "3584889"   "3799501"   "4434909"   "5002290"   "5076557"   "5088745"   "5536018"   "5551705"   "5687976"   "6065757"   "6129358"   "6264206"   "6719302").PN.	US-PGPUB; USPAT; USOCR	OR	ON	2006/11/16 17:30
S81	0	("6981704").URPN.	USPAT	OR	ON	2006/11/16 17:32
S82	2001	@pd>="19661213" and S79	US-PGPUB; USPAT	OR	ON	2006/11/16 17:44
S83	1124	@pd<="19661213" and S79	US-PGPUB; USPAT	OR	ON	2006/11/20 14:21
S84	13	("3167322").URPN.	USPAT	OR	ON	2006/11/16 18:08